

Adopt new 310 CMR 7.72 *Reducing Sulfur Hexafluoride Emissions from Gas-Insulated Switchgear*, to read as follows:

310 CMR 7.72 Reducing Sulfur Hexafluoride Emissions from Gas-Insulated Switchgear

(1) Purpose. The purpose of this regulation is to achieve greenhouse gas emission reductions by reducing sulfur hexafluoride (SF<sub>6</sub>) emissions from gas-insulated switchgear.

(2) Definitions. The definitions in 310 CMR 7.00 apply to 310 CMR 7.72. The following additional terms have the following meanings when they appear in 310 CMR 7.72. If a term is defined both in 310 CMR 7.00 and in 310 CMR 7.72(2), the definition in 310 CMR 7.72(2) applies for purposes of 310 CMR 7.72.

Active GIS Equipment means non-hermetically sealed SF<sub>6</sub> gas-insulated switchgear that is:

- (a) Connected through busbars or cables to the GIS owner's electrical power system; or
- (b) Fully-charged, ready for service, located at the site in which it will be activated, and employs a mechanism to monitor SF<sub>6</sub> emissions.

Active GIS equipment does not include equipment in storage.

Electrical Power System means the combination of electrical generators (e.g., power plants), transmission and distribution lines, equipment, circuits, and transformers used to generate and transport electricity from the generators to consumption areas or to adjacent electrical power systems.

Federal Reporting GIS Owner means a GIS Owner who is required to report SF<sub>6</sub> emissions to US EPA pursuant to 40 CFR Part 98, Subpart NN (§ 98.400-408).

Gas-insulated switchgear or GIS means all electrical power equipment insulated with SF<sub>6</sub> gas. Gas-insulated switchgear or GIS includes switches, stand-alone gas-insulated equipment, and any combination of electrical disconnects, fuses, electrical transmission lines, transformers and/or circuit breakers used to isolate gas-insulated electrical equipment.

GIS Owner means the person who owns, leases, operates, or controls gas-insulated switchgear used in Massachusetts. GIS owner excludes temporary possession by the following persons: (1) the original equipment manufacturer during GIS equipment transport and installation at a customer's site, and (2) a qualified person who hauls the GIS for reuse, recycle or destruction.

Hermetically Sealed Gas-insulated Switchgear means switchgear that is designed to be gas-tight and sealed for life. This type of switchgear is pre-charged with SF<sub>6</sub>, sealed at the factory, and cannot be refilled by its user.

(3) Applicability.

- (a) Any federal reporting GIS owner is subject to 310 CMR 7.72(1) – (9).
- (b) Any GIS owner that is not a federal reporting GIS owner is subject to 310 CMR 7.72(1) - (4), (8), and (9), and not subject to 310 CMR 7.72(5) – (7).

(4) General Requirements for All GIS Owners.

- (a) Any GIS that is placed under the ownership, lease, operation, or control of any GIS owner after January 1, 2014 must be represented by the manufacturer to have a 1.0% maximum annual leak rate.

(b) Any GIS owner that places GIS under ownership, lease, operation, or control after January 1, 2014 shall comply with maintenance procedures recommended by the manufacturer or otherwise necessary to ensure that the equipment meets the 1.0% maximum annual leak rate.

(c) If any particular piece of active GIS equipment placed under the ownership, lease, operation, or control of any GIS owner after January 1, 2014 does not meet the 1.0% maximum annual leak rate, the GIS owner shall, by April 15 of the year following the calendar year during which the SF<sub>6</sub> was added, provide documentation to the Department demonstrating compliance with 310 CMR 7.72(4)(a) and (b) and describing any additional actions taken or anticipated actions that are expected to reduce the emission rate in the future.

1. GIS owners shall use data recorded pursuant to 310 CMR 7.72(8)(b) to determine whether the 1.0% maximum annual leak rate is met.

2. For the purpose of determining whether GIS meets the 1.0% maximum annual leak rate, GIS owners shall determine an annual average by dividing the amount of SF<sub>6</sub> added to a piece of active GIS equipment by the number of years since the previous addition of SF<sub>6</sub>.

3. For the purpose of determining whether GIS meets the 1.0% maximum annual leak rate, GIS owners may disregard the first time SF<sub>6</sub> is added after the GIS becomes active GIS equipment.

4. GIS owners may apply the requirements of 310 CMR 7.72(4)(c) to any group of commonly owned, leased, operated, or controlled pieces of active GIS equipment located in Massachusetts, instead of a single piece of active GIS equipment.

(d) Upon removal of any GIS containing SF<sub>6</sub> from the ownership, lease, operation, or control of a GIS owner, the GIS owner shall provide for the re-use, recycling, or destruction of the SF<sub>6</sub> no later than six months after the GIS has been permanently taken out of service. The GIS owner shall document such re-use, recycling, or destruction and shall, upon request, provide the Department with such documentation sufficient to demonstrate compliance with 310 CMR 7.72(4)(d).

(e) GIS owners are responsible for compliance with 310 CMR 7.72(4) with respect to any GIS that is under their ownership, lease, operation, or control in Massachusetts.

Documentation provided to GIS owners by qualified persons, such as manufacturers, suppliers, and maintenance contractors, is sufficient to demonstrate compliance with all provisions of 310 CMR 7.72(4).

(5) Maximum Annual SF<sub>6</sub> Emission Rate. For each calendar year specified below, each federal reporting GIS owner shall ensure that the maximum annual SF<sub>6</sub> emission rate for all of its active GIS equipment, as calculated pursuant to 310 CMR 7.72(6)(b)8., shall not exceed the following:

Maximum Annual SF <sub>6</sub> Emission Rate	
Calendar Year	Maximum Allowable SF <sub>6</sub> Emission Rate
2013	3.5%
2014	3.5%
2015	3.5%
2016	3.0%
2017	2.5%
2018	2.0%
2019	1.5%
2020, and each calendar year thereafter	1.0%

(6) Annual Reporting Requirements.

(a) By April 15 of each year from 2014-2021, each federal reporting GIS owner must submit an annual report to the Department for emissions that occurred during the previous calendar year.

(b) The annual report shall be submitted electronically in a format specified by the Department, and must contain all of the following information:

1. The federal reporting GIS owner's name, physical address, and mailing address;
2. The location of records and documents;
3. The name and contact information including e-mail address and telephone number of the responsible official submitting the report, and the person primarily responsible for preparing the report;
4. The year for which the information is submitted;
5. The authorized signature of a responsible official of the federal reporting GIS owner, and the following certification statement: "I certify that I have personally examined the report for this facility and am familiar with the information contained in that report and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."
6. The number of pounds of SF<sub>6</sub> emitted from GIS equipment owned, leased, operated, or controlled by the federal reporting GIS owner and located in Massachusetts during the year, as calculated using the equation specified in 40 CFR § 98.303 and procedures for estimating missing data specified in 40 CFR § 98.305, adjusted to account for any emergency events reported pursuant to 310 CMR 7.72(7);
7. The total nameplate capacity of SF<sub>6</sub>-containing active GIS equipment owned, leased, operated, or controlled by the federal reporting GIS owner and located in Massachusetts at the end of the year, as calculated in a manner consistent with the data reporting requirement specified in 40 CFR § 98.306(a)(1);
8. The annual SF<sub>6</sub> emission rate for active GIS equipment owned, leased, operated, or controlled by the federal reporting GIS owner and located in Massachusetts, as calculated by dividing the number of pounds of SF<sub>6</sub> emitted during the year by the nameplate capacity of SF<sub>6</sub>-containing active GIS equipment at the end of the year, as calculated pursuant to 310 CMR 7.72(6)(b)6. and 7.;
9. All other related information submitted to US EPA in accordance with 40 CFR § 98.306, except for any information that the Department obtains directly from US EPA; and
10. Any information required to comply with 310 CMR 7.72(7)(b).

(7) Emergency Event Exemption.

(a) A federal reporting GIS owner may exempt emissions from a sudden and unforeseen event from the calculation of the maximum allowable emission rate if the federal reporting GIS owner demonstrates that the release of SF<sub>6</sub>:

1. Was caused by an emergency event, such as a fire, flood, or earthquake; and
2. Could not have been prevented by the exercise of prudence, diligence, and care; and
3. Was beyond the control of the federal reporting GIS owner.

(b) In order for emissions to be exempted from the calculation of the maximum allowable emission rate, the following information shall be included in the annual report submitted by the federal reporting GIS owner.

1. A detailed description of the emergency event, including but not limited to the following:
  - a. The nature of the event (e.g., fire, flood, earthquake);

- b. The date and time the event occurred;
  - c. The location of the event;
  - d. The GIS equipment that was affected by the event;
  - e. The amount of SF<sub>6</sub> released (in pounds);
2. Any other supporting documentation required to demonstrate compliance with 310 CMR 7.72(7)(a)1.-3.
- (c) If the Department determines that the federal reporting GIS owner has failed to demonstrate that the event meets the criteria provided at 310 CMR 7.72(7)(a), the Department will notify the federal reporting GIS owner, and the federal reporting GIS owner shall amend the relevant annual emission report to include SF<sub>6</sub> emissions resulting from the event.

(8) Monitoring, Q/A, and Recordkeeping Requirements.

- (a) All federal reporting GIS owners shall comply with all requirements of 40 CFR § 98.304 and 307 with respect to equipment and containers used in Massachusetts.
- (b) All GIS owners shall retain for five years documentation sufficient to demonstrate compliance with 310 CMR 7.72(4). In order to demonstrate that the 1.0% maximum annual leak rate is met, GIS owners shall record, no less than annually, the amount of SF<sub>6</sub> added to each piece of GIS, if any.
- (c) All documentation used to comply with any provision of 310 CMR 7.72 shall be retained by the GIS owner for five years and provided to the Department electronically or in hard copy as requested by the Department.
- (d) In cases where GIS that was previously owned, leased, operated, or controlled by a GIS owner and located in Massachusetts is no longer owned, leased, operated, or controlled by the GIS owner, the GIS owner must retain for five years from date of termination of said GIS owner's ownership, lease, operation, or control, documentation sufficient to demonstrate compliance with 310 CMR 7.72(4)(d).

(9) Enforcement. The Department shall enforce the requirements of 310 CMR 7.72 in accordance with applicable federal and Massachusetts law, including but not limited to M.G.L. c. 21A, sec.16, M.G.L. c. 111 secs. 142 A through 142M, and M.G.L. c. 21N sec. 7(d).